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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,583	11/27/2001	Geoffrey Alan Cleary	SEDN/304	7292
56015	7590	08/03/2007	EXAMINER	
PATTERSON & SHERIDAN, LLP/ SEDNA PATENT SERVICES, LLC 595 SHREWSBURY AVENUE SUITE 100 SHREWSBURY, NJ 07702			VAN HANDEL, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2623	
			MAIL DATE	DELIVERY MODE
			08/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No. 09/994,583	Applicant(s) CLEARY ET AL.	
Examiner Michael Van Handel	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 May 2007.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25, 27 and 28 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-25, 27, 28 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/19/2007 has been entered.

Response to Amendment

1. This action is responsive to an Amendment filed 4/19/2007. Claims **1-25, 27, 28** are pending. Claims **1, 2, 12-14, 28** are amended. Claim **26** is canceled. The examiner hereby withdraws the objections to claim **14** in light of the amendment.

Response to Arguments

1. Applicant's arguments regarding claims **1, 2, 12, and 28**, filed 4/19/2007, have been fully considered, but they are not persuasive.

Regarding claims **1, 2, 12, and 28**, the applicant argues that Ellis et al. teaches away from the applicant's invention, because Ellis et al. teaches that when a user selects or designates a program for recording, the program guide generates a record request and transmits the request to the media server, while Applicant's claim is directed to storing audiovisual data according to a

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title plan generated by a time shift scheduler. The examiner respectfully disagrees. Section 2131.05 of the MPEP states:

“Arguments that the alleged anticipatory prior art ... teaches away from the invention’ ... [are] not germane’ to a rejection under section 102.” (See MPEP § 2131.05).

In response to the applicant’s argument that the reference fails to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., time shift scheduler generates a title plan, which is then provided to the Interactive Programming Guide system) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The examiner further notes that Applicant’s specification states that “The Time Shift Scheduler (TSS) 110 is used by program planners (e.g., the MSO programmers) to generate a Title Plan in order to schedule the acquisition (i.e., ‘capture’) of broadcast content (p. 12, lines 22-24).” Applicant’s specification further states that “In one embodiment, the title plan is generated according to subscriber input (p. 13, lines 1-2).” Ellis et al. discloses queuing user-generated record requests in a request queue 110 for consolidation. A consolidator 115 consolidates multiple record requests for the same programs. The job queue contains program identifiers for the programs that have been selected for recording on remote server 24 (p. 6, paragraphs 85-87). As such, the examiner maintains that Ellis et al. meets the limitation of “storing ... audiovisual data received from said desired transmission channel according to a title plan generated by a time shift scheduler ...,” as currently claimed.

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Further regarding claims **1**, **2**, **12**, and **28**, the applicant argues that Ellis et al. is silent on storing dynamically content of variable duration that is in the title plan. The examiner respectfully disagrees. Ellis et al. discloses that entries 121 in job queue 120 include start times and end times (durations)(p. 6, paragraph 87 & Fig. 5). Ellis et al. further discloses recording programs of different durations (Fig. 25a). Ellis et al. still further discloses that users can cache programs in real-time (p. 15, paragraph 165). Thus, the examiner maintains that Ellis et al. meets the limitation of “storing dynamically ... content of variable duration,” as currently claimed.

Still further regarding claims **1**, **2**, **12**, and **28**, note the rejection of claims 1 and 2 under 35 USC 112, first paragraph below. The applicant argues that Ellis et al. is completely silent on teaching or suggesting that the particular transmission channel that programs are captured from is the same transmission channel that provides the captured content. The examiner respectfully disagrees. Ellis et al. discloses that the recorder 125 is a process running on processing circuitry 11 of remote media server 24 and may direct the processing circuitry's one or more tuners to particular channels at particular times (p. 6, paragraph 88). The same channels are received at user television equipment 22 over communication link 20 (p. 4, paragraphs 64, 65 & Figs. 2a-2d). The processing circuitry 11 decodes program files stored on storage 15 and converts them to suitable video signals for distribution by distribution equipment 21 (p. 5, paragraphs 75, 77). Since distribution equipment distributes both the original program broadcast and the recorded program files over communication link 20, the examiner maintains that Ellis et al. meets the limitation that the particular transmission channel that programs are captured from is the same transmission channel that provides captured content, as claimed.

Claim Objections

1. Claims 13 and 28 are objected to because of the following informalities:

Referring to claim 13, the examiner notes that the phrase “said previously scheduled broadcast programs” lacks antecedent basis. Claim 12 recites the phrase “scheduled broadcast programs;” however, the examiner fails to find a previous recitation of the phrase “previously scheduled broadcast programs.” The examiner recommends changing the phrase by removing the word “said.” The examiner interprets the claim in the Office Action below as though the recommended changes have been made.

Referring to claim 28, the examiner notes that the preamble recites “an apparatus.” The examiner notes that this language is confusing, because different limitations of claim 28 correspond to different pieces of equipment (means for broadcasting corresponds to MSO distribution, while means for processing corresponds to TSIP 170). As such, the examiner recommends that the language be changed to “A system.” The examiner interprets the claim in the Office Action below as though the recommended changes have been made.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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2. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Referring to claims 1 and 2, the examiner fails to find support for the newly added limitation “via said desired transmission channel” in Applicant’s specification. The examiner acknowledges Applicant’s assertion that “the particular channel that programs are captured from is the same channel that provides the captured content” and the applicant’s statement that support is provided on p. 20, l. 18-29 of the applicant’s specification; however, the examiner respectfully disagrees. The lines cited by the applicant state that “[w]hen the set top initiates time-shifted services using the rewind and pause buttons, the Set top terminal sends a message to the NAS indicating which channel the Set top terminal is tuned to and which button was pressed. In the case of the rewind button, the NAS commands the Server to stream rewind track for that service ...” The examiner notes; however, that the cited passage does not state that the rewind track is streamed on the same channel that the Set top terminal (STT) is tuned to. In fact, the applicant’s specification states that each STT receives normal broadcast content (non-time-shifted content) via the normal multiple system operator (MSO) distribution channel and time-shifted or on-demand content via the network equipment 160. As shown in Figure 1, broadcast content is distributed from decoder 106 to the MSO distribution channel, while time-shifted content is distributed through network equipment 160 as video sequences (p. 11, lines 7-20 & Fig. 1). Applicant’s specification also states that the STTs include the ability to tune digital channels

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containing the IPG streams (p. 20, lines 16-18), while the broadcast television channels are received via a conventional analog television signal receiver 224 (p. 22, line 9 & Fig. 2).

Applicant's specification further indicates a need to retune a channel when switching from broadcast mode to time-shift mode and vice versa (p. 21, lines 13-25; p. 27, lines 25-28; p. 28, lines 1-29; p. 29, lines 1-29; & p. 30, lines 1-13). Thus, the examiner interprets Applicant's specification as indicating that the broadcast content and time-shifted content are transmitted via different transmission channels.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 7-16, 25, 27, 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellis et al.

Referring to claim 1, see the rejection under 35 USC 112 above. Ellis et al. discloses a method, comprising:

- receiving audiovisual data from a desired transmission channel (the recorder 125 is a process running on processing circuitry 11 of remote media server 24 and may direct the processing circuitry's one or more tuners to particular channels at particular times. The channels are also received at user television equipment 22 over communication

- link 20. The processing circuitry 11 is suitable for decoding program files stored on storage 15 and converting them to suitable video signals for distribution by distribution equipment 21)(p. 4, paragraphs 64, 65; p. 5, paragraphs 75, 77; p. 6, paragraph 88; & Figs. 2a-2d);
- if said audiovisual data is not compressed according to a predetermined format, compressing said audiovisual data according to said predetermined format (p. 6, 7, paragraph 89);
 - storing dynamically, in a mass storage device and for a predefined period of time, compressed audiovisual data received from said desired transmission channel according to a title plan generated by a time shift scheduler, wherein said title plan includes content of variable duration (p. 6, paragraphs 83, 85-87; p. 11, paragraphs 125, 126, 133; p. 12, paragraphs 142, 143; p. 13, paragraph 149; & Fig. 25a); and
 - in response to a user request, providing to said user stored compressed audiovisual data beginning with a portion of said stored compressed audiovisual data having associated with it a first temporal parameter via said desired transmission channel (p. 15, paragraphs 163-166 & Fig. 22).

Referring to claim 2, see the rejection under 35 USC 112 above. Ellis et al. discloses a method in a system adapted to receive broadcast content on a desired transmission channel from each of a plurality of content sources and forward said received broadcast content to a transport network for distribution to subscribers (the recorder 125 is a process running on processing circuitry 11 of remote media server 24 and may direct the processing circuitry's one or more tuners to particular channels at particular times. The channels are also received at user television

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equipment 22 over communication link 20. The processing circuitry 11 is suitable for decoding program files stored on storage 15 and converting them to suitable video signals for distribution by distribution equipment 21)(p. 4, paragraphs 64, 65; p. 5, paragraphs 75, 77; p. 6, paragraph 88; & Figs. 2a-2d), the method comprising:

- in response to a title plan generated by a time shift scheduler, wherein said title plan includes content of variable duration (p. 6, paragraphs 83, 85-87; p. 11, paragraphs 125, 126, 133; p. 12, paragraphs 142, 143; p. 13, paragraph 149; & Fig. 25a), storing dynamically said broadcast content in a server and associating with said broadcast content a temporal parameter (p. 7, paragraph 97);
- forwarding said broadcast content to said transport network for distribution in accordance with said temporal parameter to a requesting subscriber (the examiner notes that the programs can be distributed according to a schedule in an NVOD approach)(p. 2, paragraph 13 & p. 7, paragraph 91); and
- in response to a subscriber request for temporally shifted content associated with said broadcast content, forwarding said stored broadcast content to said transport network for distribution to said requesting subscriber via said desired transmission channel (p. 15, paragraphs 163-166 & Fig. 22).

Referring to claim 3, Ellis et al. discloses the method of claim 2, further comprising forwarding to said transport network only the received broadcast content presently requested by any subscriber (p. 7, paragraph 91).

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Referring to claim 4, Ellis et al. discloses the method of claim 2, further comprising storing, in said server, broadcast content presently requested by a threshold number of subscribers (p. 6, paragraphs 85, 86).

Referring to claim 7, Ellis et al. discloses the method of claim 2, wherein said storing of said desired broadcast content comprises storing a version of the desired broadcast content to generate a play track (p. 5, paragraph 74 & p. 7, paragraph 91).

Referring to claim 8, Ellis et al. discloses the method of claim 2, further comprising, storing selected broadcast content during a predetermined time interval of a broadcast schedule (p. 5, paragraph 76).

Referring to claim 9, Ellis et al. discloses the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift interactive programming guide screen (p. 15, paragraphs 162, 163 & Fig. 22).

Referring to claim 10, Ellis et al. discloses the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift navigation screen (p. 15, paragraphs 162, 163 & Fig. 22).

Referring to claim 11, Ellis et al. discloses the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a pause or rewind subscriber selection while broadcasting of said desired content (p. 17, 18, paragraph 185).

Referring to claims 12 and 28, see the claim objection regarding claim 28 above. Ellis et al. discloses a method/apparatus for providing video information in an interactive information distribution system to a plurality of subscribers, comprising:

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- receiving a plurality of scheduled broadcast programs on a desired transmission channel in real-time (the recorder 125 is a process running on processing circuitry 11 of remote media server 24 and may direct the processing circuitry's one or more tuners to particular channels at particular times. The channels are also received at user television equipment 22 over communication link 20. The processing circuitry 11 is suitable for decoding program files stored on storage 15 and converting them to suitable video signals for distribution by distribution equipment 21)(p. 4, paragraphs 64, 65; p. 5, paragraphs 75-77; p. 6, paragraph 88; & Figs. 2a-2d);
- selecting a portion of said broadcast programs according to a title plan generated by a time shift scheduler, wherein said title plan includes content of variable duration (p. 6, paragraphs 83, 85-87; p. 11, paragraphs 125, 126, 133; p. 12, paragraphs 142, 143; p. 13, paragraph 149; p. 15, paragraph 166; & Fig. 25a);
- processing said selected broadcast programs into temporally adjusted content, such that the temporally adjusted content is associated with said selected broadcast programs (the examiner notes that by recording content, it can be viewed at a different time than when it was aired. The examiner interprets such content to be temporally adjusted (p. 15, paragraph 166);
- storing dynamically said temporally adjusted content (p. 12, 13, paragraph 143);
- broadcasting said plurality of scheduled broadcast programs to said plurality of subscribers via said desired transmission channel (p. 4, paragraph 64 & p. 6, paragraphs 85, 86); and

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- in a first mode of operation, associating a temporal parameter to said temporally adjusted content and streaming, on-demand, said temporally adjusted content having said temporal parameter to those subscribers viewing said selected broadcast programs currently being broadcast, such that said subscribers may interactively activate such temporally adjusted content contemporaneously with said currently broadcast programs (p. 15, paragraphs 163-66).

Referring to claim 13, see the claim objection above. Ellis et al. discloses the method of claim 12, further comprising providing a navigator list (directory) to said subscribers having screens presenting said selected broadcast programs having temporally adjusted content for viewing and selection, wherein in an alternate mode of operation, streaming, on-demand, said temporally adjusted content via said navigator list, such that said subscribers may interactively activate such temporally adjusted content during viewership of said previously scheduled broadcast programs selected from said navigator list (p. 13, paragraph 145 & Fig. 18a).

Referring to claim 14, Ellis et al. discloses the method of claim 13, wherein said subscribers may interactively switch between said first mode and said alternate mode of operation (the examiner notes that the remote media server 24 can perform real-time caching of a program, allowing a user to continue watching later. The user can then catch up to the aired program by fast-forwarding. The user could also switch to a different stored program through the directory listing)(p. 13, paragraph 145; p. 15, paragraphs 165, 166; & Fig. 18a).

Referring to claim 15, Ellis et al. discloses the method of claim 12, wherein said selecting step comprises:

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- monitoring subscriber viewership and selecting those broadcast programs having a viewership exceeding a predetermined metric (p. 6, paragraphs 85, 86 & p. 13, paragraph 148).

Referring to claim 16, Ellis et al. discloses the method of claim 12, wherein said selecting step further comprises:

- generating title plans for identifying said broadcast programs to be temporally adjusted (p. 15, paragraph 166); and
- defining a temporal availability window for each program (the examiner notes that the remote media server 24 records the program from the position at which the user began recording up to the position of the aired program (p. 15, paragraph 165, 166).

Referring to claim 25, Ellis et al. discloses the method of claim 12, wherein said first mode of operation further comprises providing an interactive program guide (IPG) to said subscribers having screens presenting said broadcast programs having temporally adjusted content for viewing and selection (p. 13, paragraphs 145-148; & Fig. 18a-d).

Referring to claim 27, Ellis et al. discloses the method of claim 12, wherein said first mode of operation comprises receiving a temporal control message from a subscriber selected from the group of temporal control messages consisting of pause, rewind, and fast-forward (p. 9, paragraph 111 & p. 15, paragraphs 163, 164).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 6, 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. in view of Moeller et al.

Referring to claims 5 and 6, Ellis et al. discloses the method of claim 2. Ellis et al. further discloses allowing a user to pause, stop, rewind, fast-forward, or play a program at a remote media server (p. 15, paragraph 162). Ellis et al. does not specifically disclose that the step of storing comprises storing a temporally sub-sampled version of the desired broadcast content to generate a fast-forward track. Moeller et al. discloses a system that is capable of transferring or playing a normal play stream at any of various indicated positions or locations (col. 6, l. 45-49). The media server stores fast forward and fast reverse streams in association with normal play streams (col. 4, l. 61-65). The fast forward and fast reverse streams have different presentation rates than the normal play stream and are generated from the normal play stream (col. 6, l. 51-59). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the step of storing in Ellis et al. to include storing fast forward and fast reverse streams in association with a normal play stream, such as that taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claim 17, Ellis et al. discloses the method of claim 16. Ellis et al. does not disclose that the processing step comprises generating real-time encoded play tracks, fast-forward tracks, rewind tracks, and entry point data (EPD) files associated with each track, said fast-forward and rewind tracks forming said temporally adjusted content. Moeller et al. discloses generating fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-

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59) and embedding indexing information within the streams to provide for indexing between the streams (col. 9, l. 10-14 & col. 11, l. 39-41). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of Ellis et al. to include generating fast forward and fast reverse video streams from a normal play stream and embedding indexing information within the streams to provide for indexing between the streams, such as that taught by Moeller et al. in order to efficiently index to different positions in a video stream in a video delivery system (col. 4, l. 20-23).

Referring to claim 18, the combination of Ellis et al. and Moeller et al. teaches the method of claim 17. Ellis et al. further discloses encoding the broadcast programs identified in the title plan (p. 6, 7, paragraph 89) and buffering said encoded broadcast programs (p. 6, 7, paragraph 89). Ellis et al. does not disclose that the processing step comprises encoding said broadcast programs to form said temporally adjusted programs. Moeller et al. discloses generating compressed fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-59). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of Ellis et al. to include generating compressed fast forward and fast reverse video streams from a normal play stream, such as that taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claim 19, the combination of Ellis et al. and Moeller et al. teaches the method of claim 18. Ellis et al. does not disclose that the processing step further comprises:

- receiving packetized transport streams from at least one encoder; and

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- inserting title identification codes (TICs) to each packet to enable said transport streams to be identified as said real-time encoded play tracks, fast-forward tracks, and rewind tracks.

Moeller et al. discloses generating compressed fast forward and fast reverse video streams from a normal play stream (col. 6, l. 56-59). Moeller et al. further discloses that the encoded stream includes sequence headers that include presentation timestamps and information describing the frame rate and picture size (col. 9, l. 57-62). Moeller et al. further discloses embedding indexing information within the normal play stream and associated trick play streams to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of Ellis et al. to include embedding timestamps, frame rate information, and indexing information within play streams and trick play streams, such as that taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claims 20 and 21, the combination of Ellis et al. and Moeller et al. teaches the method of claim 19. Ellis et al. does not disclose generating EPD files as fast-forward and rewind tracks are being created. Moeller et al. discloses generating and embedding index information within normal play streams and associated trick play streams to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Ellis et al. to include generating and embedding index information within normal play streams and associated trick play streams, such as that taught by Moeller et al. in order to decrease latency time at a video server.

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5. Claims **22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. in view of Moeller et al. and further in view of Youden et al.

Referring to claim **22**, the combination of Ellis et al. and Moeller et al. teaches the method of claim 19, wherein the storing step includes receiving the buffered encoded broadcast programs (p. 6, 7, paragraphs 89, 90) and storing the real-time play tracks in a plurality of extents (p. 6, paragraphs 82, 83). Neither Ellis et al. nor Moeller et al. disclose that the storing step comprises storing said fast-forward tracks in extents in front to back order and storing said rewind tracks in extents in back to front order. Youden et al. discloses storing selected video data for a FF version in the same order as the original video data is stored and storing the selected video data for the FR version in reverse order to the original version of the video data (col. 4, l. 3-7). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the storing step in the combination of Ellis et al. and Moeller et al. to include storing video data for a FF version in the same order as the original video data is stored and storing the selected video data for the FR version in reverse order to the original version of the video data, such as that taught by Youden et al. in order to decrease latency time at a video server.

Referring to claim **23**, the combination of Ellis et al., Moeller et al., and Youden et al. teaches the method of claim 22, where said storing step further comprises storing selected broadcast programs from a particular channel for a fixed window of time (Ellis et al. p. 6, paragraph 87).

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Referring to claim 24, the combination of Ellis et al., Moeller et al., and Youden et al. teaches the method of claim 22, where said storing step further comprises storing selected broadcast programs from a plurality of channels (Ellis et al. p. 6, paragraph 88).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Van Handel whose telephone number is 571-272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVH


SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER